SERVICE MANUAL

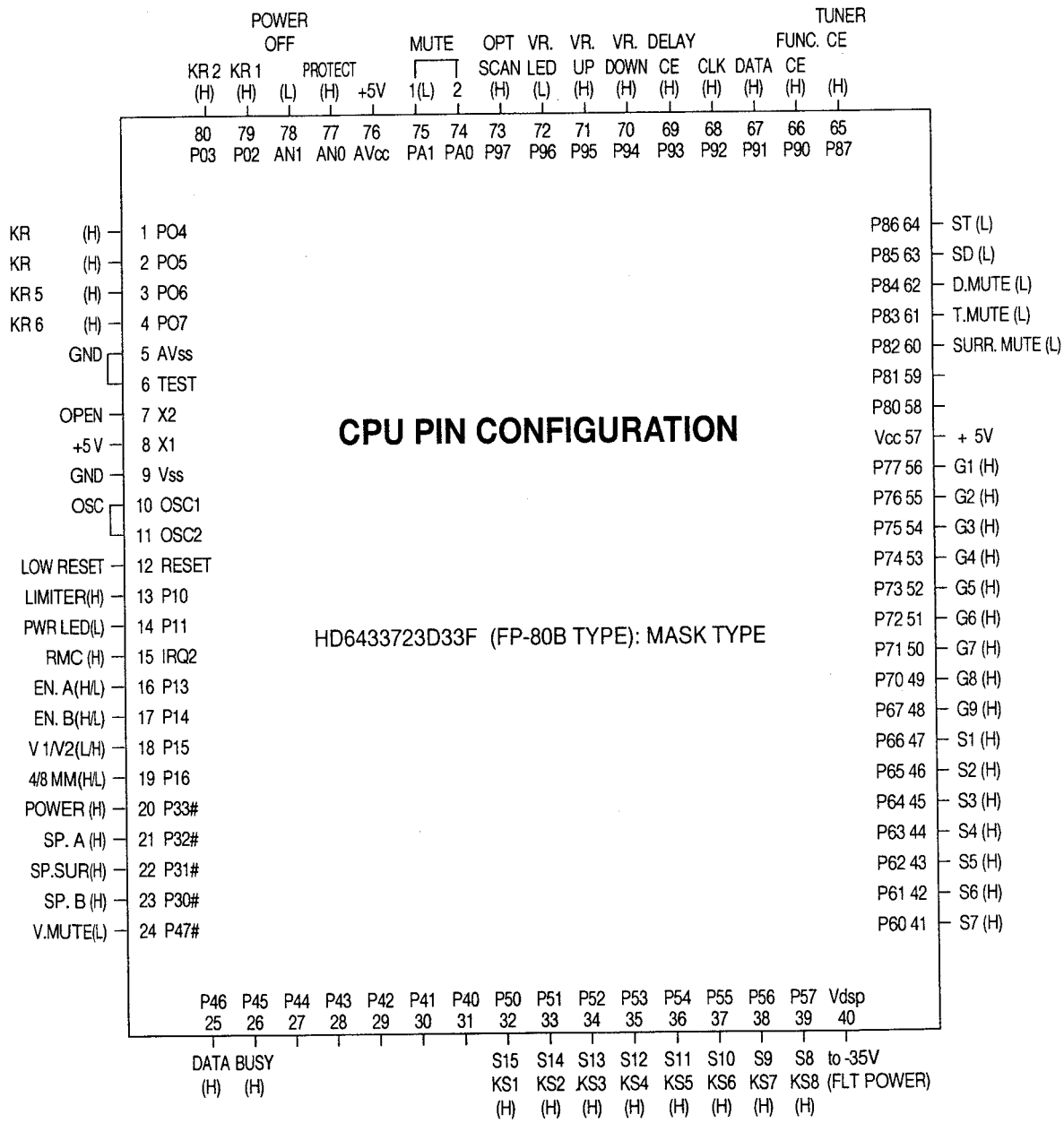
UDIO VIDEO
RO LOGIC PECEIVER

WARNING

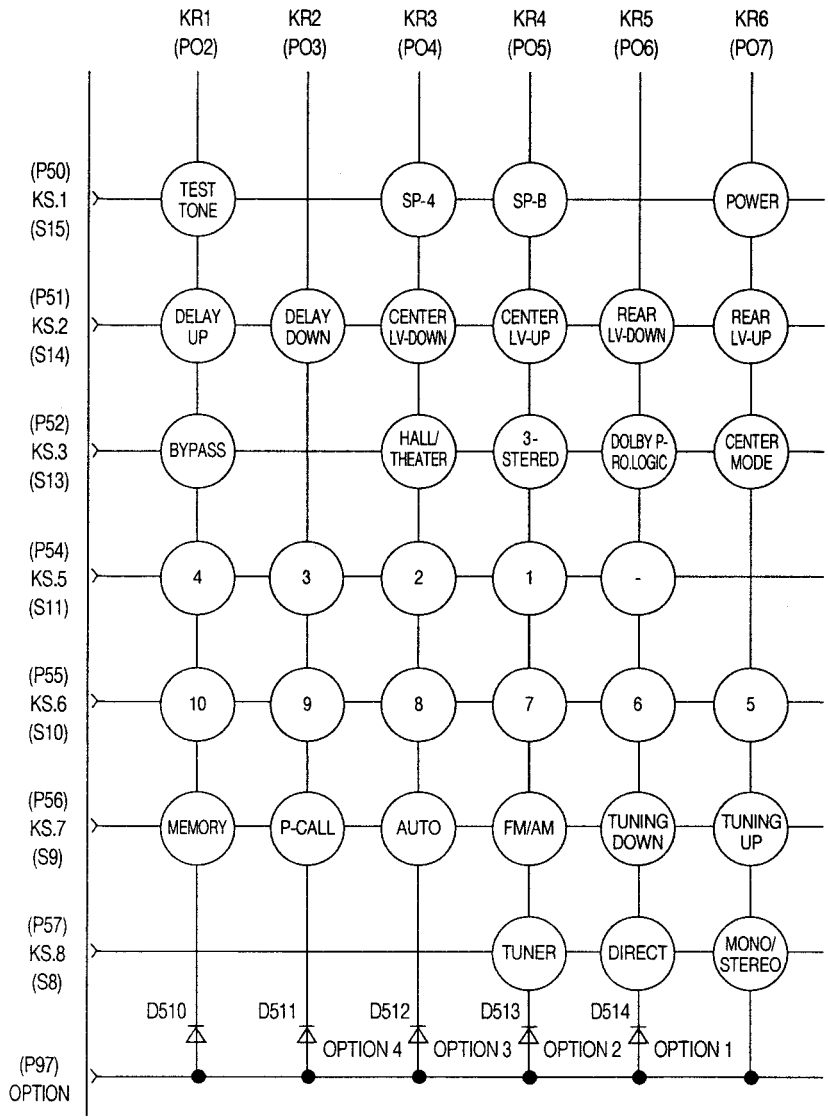
FOR CONTINUED SAFETY THE FOLLOWING PRECAUTIONS SHOULD BE FOLLOWED DURING SERVICING

1. MAKE SURE POWER CORD IS DISCONNECTED BEFORE REPLACING ANY PARTS.
2. REPLACE WITH THE SAME TYPE, CRITICAL PARTS WITH ⚠ MARK ON THIS DIAGRAM.
3. THE FOLLOWING TEST MUST BE IMPLEMENTED AFTER EACH REPAIR BEFORE RETURNING IT TO CUSTOMER.
   USE AN OHM-METER TO MEASURE THE D.C. RESISTANCE FROM BOTH A.C. CONDUCTORS TO ANY EXPOSED METALLIC PARTS SUCH AS A SCREW HEAD, METAL INLAYS ETC. THE RESISTANCE MEASURED TO BE 10 MEGAOHMS MINIMUM.

DOLBY PRO. LOGIC RECEIVER CPU PIN CONFIG.



KEY MATRIX



D512	PROCGIC
D513	REMOCON
D514	WELLOME

D10DE SW

	D510	D511			STEP
USA	0	0	FM	87.5MHz~108MHz	100kHz
			AM	520kHz~1710kHz	10kHz
EUR	1	1	FM	87.5MHz~108MHz	50kHz
			AM	522kHz~1602kHz	9kHz
AUS(호주)	0	1	FM	875MHz~128MHz	100kHz
			AM	522kHz~1602kHz	9kHz

0: NO DIODE
1: ADD DIODE

CPU PIN DISCRIPTION

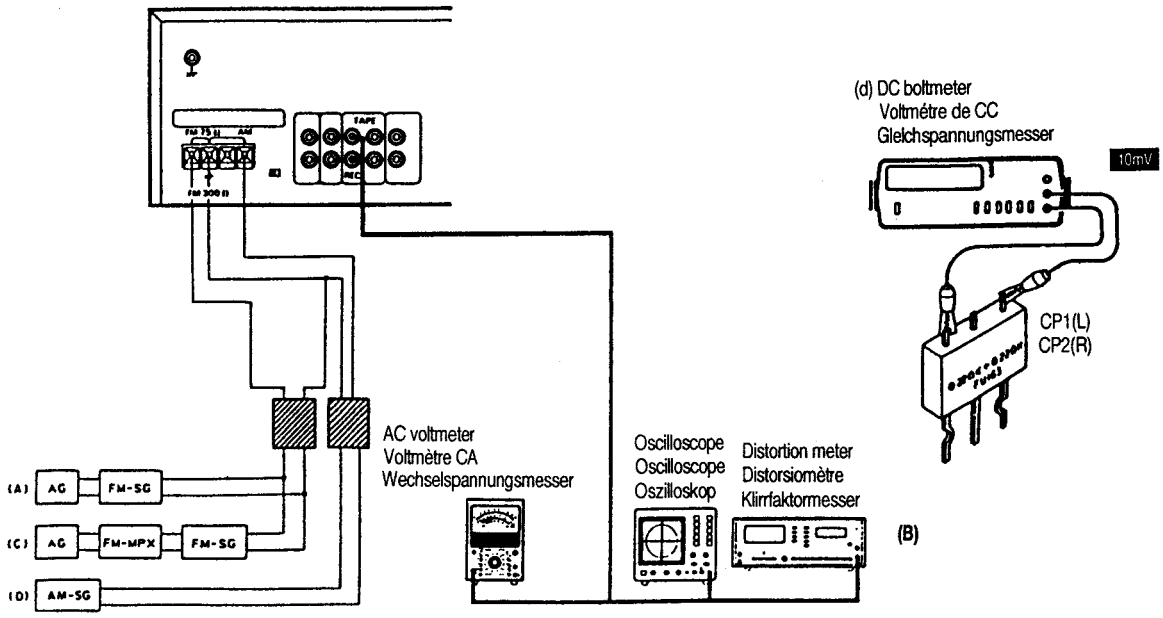
PIN NO	PIN NAME	I/O	PULL U/D	ACTIVE	PORT NAME	REMARK
1	PO4	I	–	H	KR3	KEY READ 3
2	PO5	I	–	H	KR4	KEY READ 4
3	PO6	I	–	H	KR5	KEY READ 5
4	PO7	I	–	H	KR6	KEY READ 6
5	AVss	I	–	–	AVss	A/D GND: DC GND
6	TEST	I	–	–	TEST	GND
7	X2	O	–	–	X2	OPEN
8	X1	I	–	–	X1	+5 V
9	Vss	I	–	–	Vss	SYSTEM GND.
10	OSC1	I	–	–	OSC1	SYSTEM. 4.19MHZ
11	OSC2	O	–	–	OSC2	1M REG.
12	RESET	I	–	L	RESET	SYSTEM RESET: ACTIVE "L"
13	P10	O	–	H	LIMITER	SURROUND "H"
14	P11	O	–	L	POWER LED	LED ON: "L"
15	IRQ2	I	–	L	REMOCON	ACTIVE "L"
16	P13	I	–	H/L	EN. A	
17	P14	I	–	H/L	EN. B	
18	P15	O	–	L/H	V1/V2	
19	P16	I	–	H/L	4/8 OHM	SPEAK CONTROL 4(H)/8(L)
20	P33	O	P/D GND	H	POWER RELAY	ON: "H"
21	P32	O	|	H	SP. A RELAY	ON: "H"
22	P31	O	|	H	SP. SUR RELAY	ON: "H"
23	P30	O	|	H	SP. B RELAY	ON: "H"
24	P47	O	|	L	VIDEO MUTE	VIDEO MUTE "L"
25	P46	I/O	|	H	DATA┐	SYSTEM DATA
26	P45	I/O	|	H	BUSY┘ SYSTEM	SYSTEM BUSY
27	P44	–	–	–	NOT USED	REMAINED
28	P43	–	–	–	NOT USED	REMAINED
29	P42	–	–	–	NOT USED	REMAINED
30	P41	–	–	–	NOT USED	REMAINED
31	P40	–	–	–	NOT USED	RAMAINED
32	P50	O	P/D Vdsp	H	S15/KS1	SEG15/LEY SCAN 1
33	P51	O	|	H	S14/KS2	SEG14/KEY SCAN 2
34	P52	O	|	H	S13/KS3	SEG13/KEY SCAN 3
35	P53	O	|	H	S12/KS4	SEG12/KEY SCAN 4
36	P54	O	|	H	S11/KS5	SEG11/KEY SCAN 5
37	P55	O	|	H	S10/KS6	SEG10/KEY SCAN 6
38	P56	O	|	H	S9/KS7	SEG 9/KEY SCAN 7
39	P57	O	|	H	S8/SK8	SEG 8/KEY SCAN 8
40	Vdisp	I	|	–	Vdisp	FLT POWER SUPPLY
41	P60	O	|	H	S7	SEG 7
42	P61	O	|	H	S6	SEG 6
43	P62	O	|	H	S5	SEG 5
44	P63	O	|	H	S4	SEG 4
45	P64	O	|	H	S3	SEG 3
46	P65	O	|	H	S2	SEG 2
47	P66	O	|	H	S1	SEG 1
48	P67	O	|	H	G9	GRID 9
49	P70	O	|	H	G8	GRID 8
50	P71		|	H	G7	GRID 7
51	P72	O	|	H	G6	GRID 6
52	P73	O	|	H	G5	GRID 5
53	P74	O	|	H	G4	GRID 4

CPU PIN DISCRIPTION

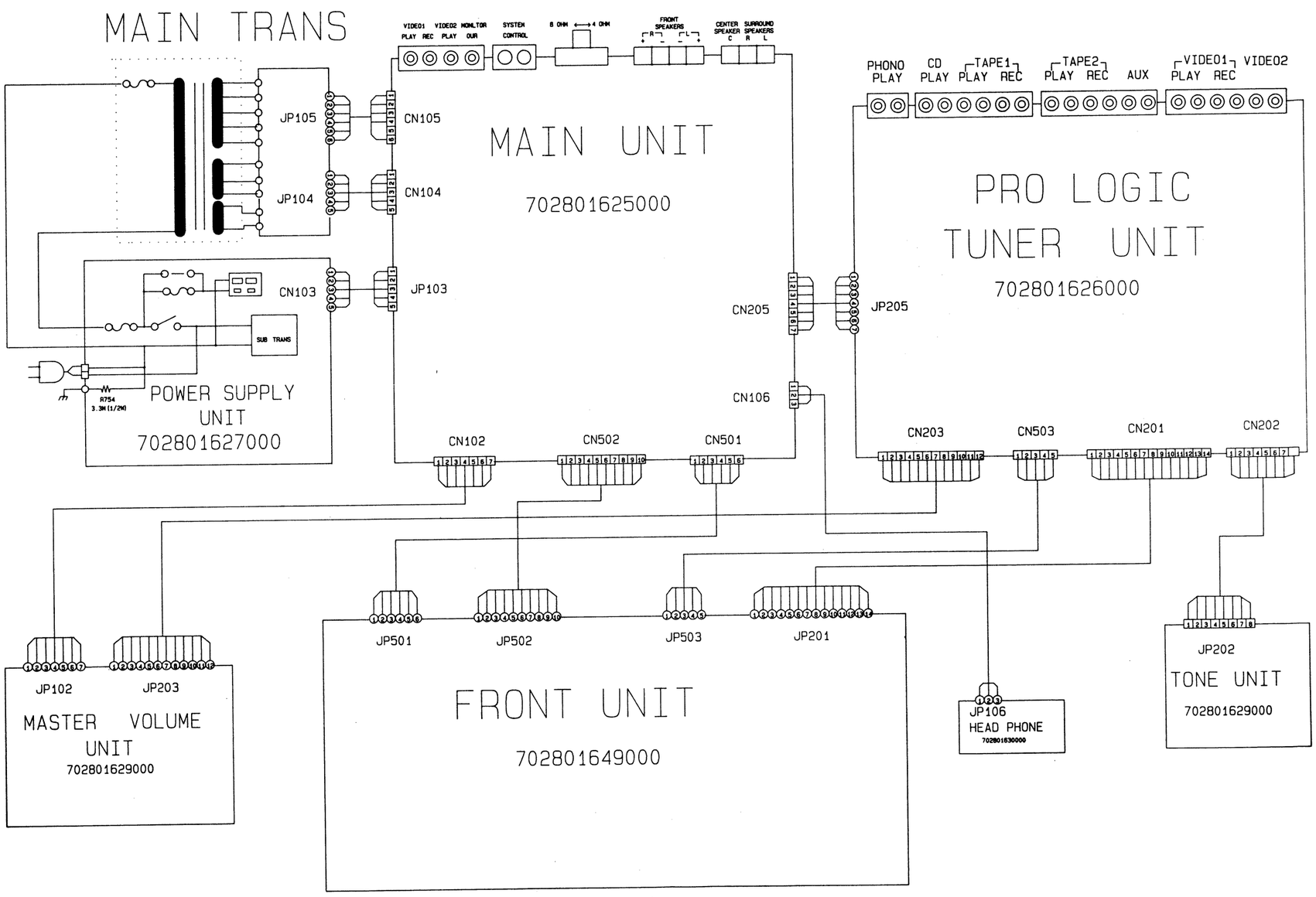
PIN NO	PIN NAME	I/O	PULL U/D	ACTIVE	PORT NAME	REMARK
54	P75	O	P/D Vdsp	H	G3	GRID 3
55	P76	O	|	H	G2	GRID 2
56	P77	O	|	H	G1	GRID 1
57	Vcc	I	–	–	Vcc	SYSTEM POWER SUPPLAY: +5 V
58	P80	–	–	–	NOT USED	REMAINED
59	P81	–	–	–	NOT USED	REMAINED
60	P82	O	–	L	SURR. MUTE	MUTE: "L"
61	P83	O	–	L	TUNER MUTE	MUTE: "L"
62	P84	O	–	L	DATA MUTE	FUN. IC. DATA OUT : "L"
63	P85	O	–	L	SD CHECK	TUNED DETECT, TUNE: "L"
64	P86	O	–	L	ST CHECK	STEREO DETECT, STEREO : "L"
65	P87	O	–	H	TUNER CE	TUNER CHIP ENABLE
66	P90	O	–	H	FUNCTION CE	FUNCTION IC. CHIP ENABLE
67	P91	O	–	H	DATA	FUNCTION DATA OUT
68	P92	O	–	H	CLK	FUNCTION CLK OUT
69	P93	O	–	H	DELAY CE	LA2785/LV101ON CHIP ENABLE
70	P94	O	–	H	VR. MOTOR DOWN	VOLUME MOTOR CONTROL ┐
71	P95	O	–	H	VR. MOTOR UP	VOLUME MOTOR CONTROL ┘ REMOTE ONLY
72	P96	O	–	L	VR. LED	LED ON: "L"
73	P97	O	–	H	OPTION SCAN	OPTION DETECT
74	PA0	O	–	L	MUTE2	FRONT L/R MUTE
75	PA1	O	–	L	MUTE1	FUNCTION MUTE
76	AVcc	I	–	–	AVcc	A/D POWER SUPPLY: +5 V
77	PO0	I	–	H	PROTECT	PROTECT "H" (SYSTEM OVER LOAD)
78	PO1	I	–	L	POWER OFF	POWER BACK-UP. POWER OFF: "L"
79	PO2	I	–	H	KR1	KEY READ 1
80	PO3	I	–	H	KR2	KEY READ 2

ADJUSTMENT

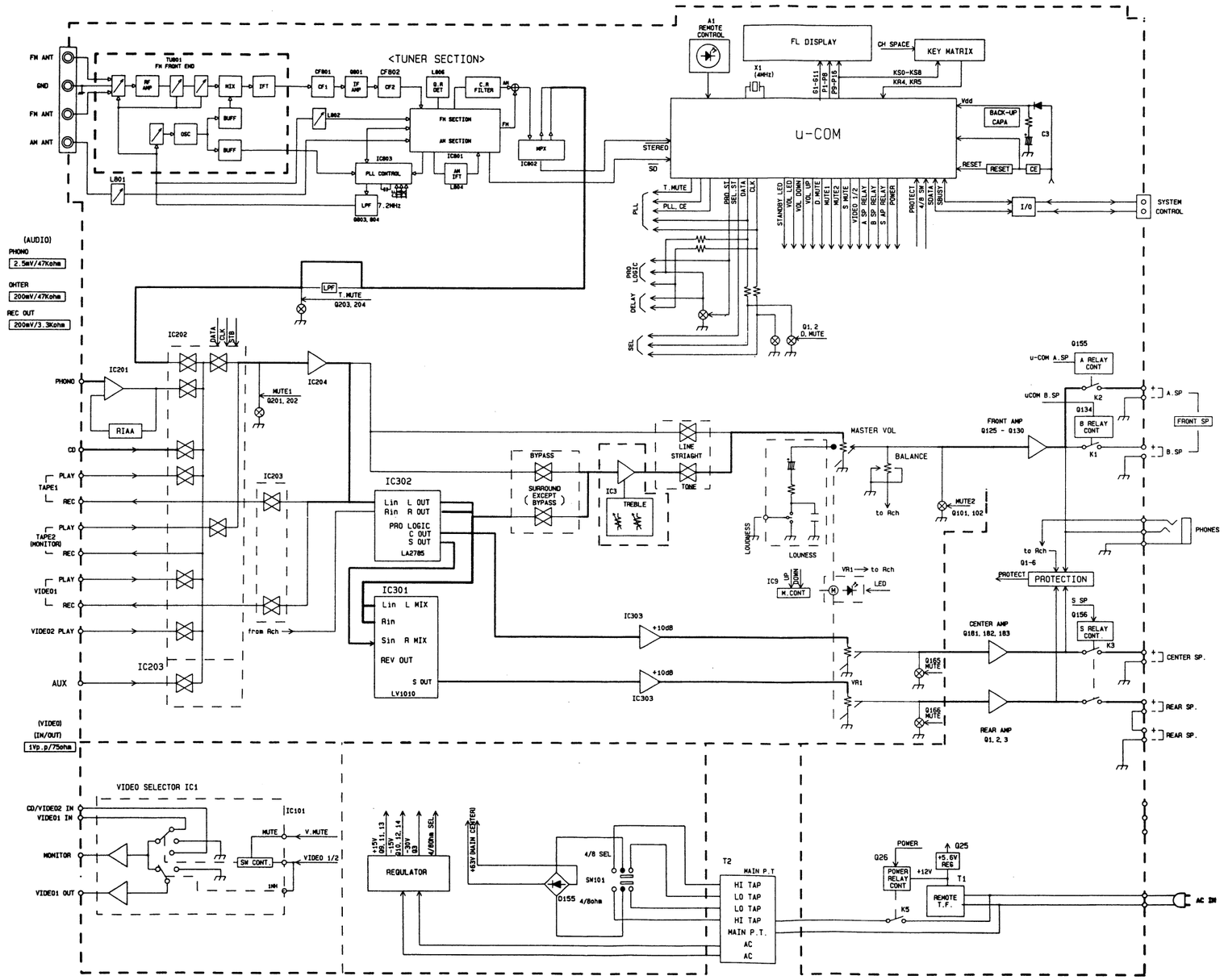
No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION		SELECTOR: FM					
1	DISCRIMINATOR	(A) 98.0MHz 1kHz, ±75kHz dev. 60dBμ(ANT. input)	Connect a DC boltmeter between TP803 and TP804. (RECEIVER UNIT)	AUTO or MONO 98.0MHz	L806 (RECEIVER UNIT)	0V	(a)
2	VCO	(A) 98.0MHz 0 dev. 60dBμ(ANT. input)	Connect a frequency counter between TP805 and TP806. (RECEIVER UNIT)	AUTO 98.0MHz	VR802 (RECEIVER UNIT)	19.00kHz	(b)
3	DISTORTION (STEREO)	(C) 98.0MHz 1kHz, ±68.25kHz dev. Selector:L or R Pilot: ±6.75kHz dev. 60dBμ(ANT. input)	(B)	98.0MHz	IFT (W02-)	Minimum distortion. (L or R)	
4	SEPARATION (E EUR)	(C) 98.0MHz 1kHz, ±40kHz dev. Pilot: ±6kHz dev. Selector: L or R 60dBμ(ANT. input)	(B)	AUTO 98.0MHz	VR803 (RECEIVER UNIT)	Minimum crosstalk	
5	TUNING LEVEL	(A) 98.0MHz 0 dev. 18dBμ(ANT. input)	(B)	AUTO or MONO 98.0MHz	VR803 (RECEIVER UNIT)	Adjust VR801 and stop at the point where FLT901(TUNED) goes on.	
AM SECTION		SELECTOR: AM					
(1)	TUNING LEVEL	(D) 1000(999)MHz 26dBμ(ANT. input)	(B)	–	VR804 (RECEIVER UNIT)	Adjust VR804 and stop at the point where FLT901(TUNED) goes on.	
AUDIO SECTION							
<1>	IDLE CURRENT	–	Connect a DC voltmeter across CP1(L) CP2(R) (RECEIVER UNIT)	Volume: 0	VR101(L) VR102(R) (RECEIVER UNIT)	10mV	(d)


(d) DC boltmeter
Voltmétre de CC
Gleichspannungsmesser
10mV
CP1(L)
CP2(R)
AC voltmeter
Voltmètre CA
Wechselspannungsmesser
Oscilloscope
Oscilloscope
Oszilloskop
Distortion meter
Distorsiomètre
Klirrfaktormesser
(B)
(A) AG FM-SG
(C) AG FM-MPX FM-SG
(D) AM-SG

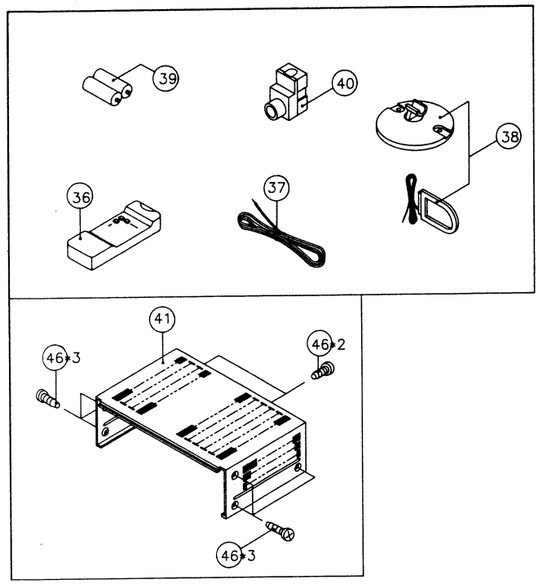
WIRING DIAGRAM

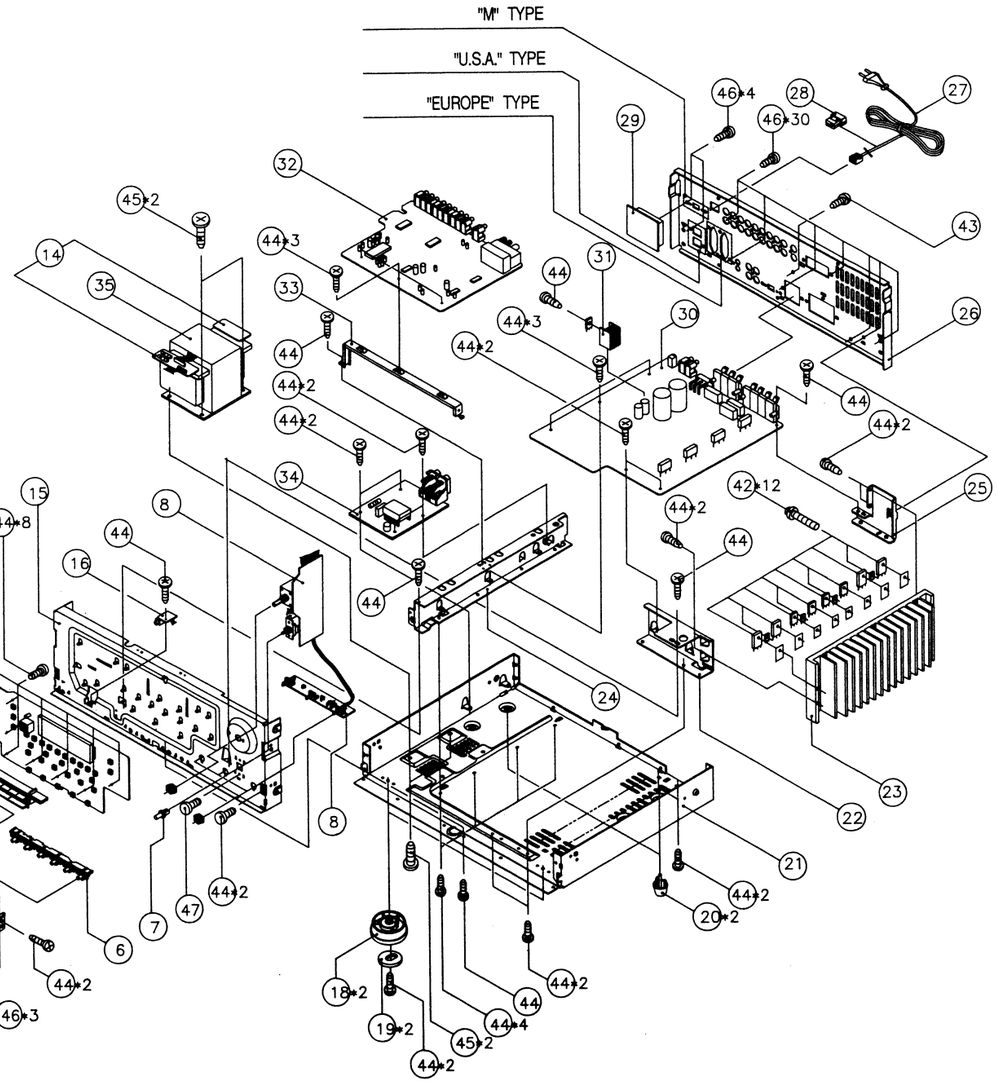


BLOCK DIAGRAM



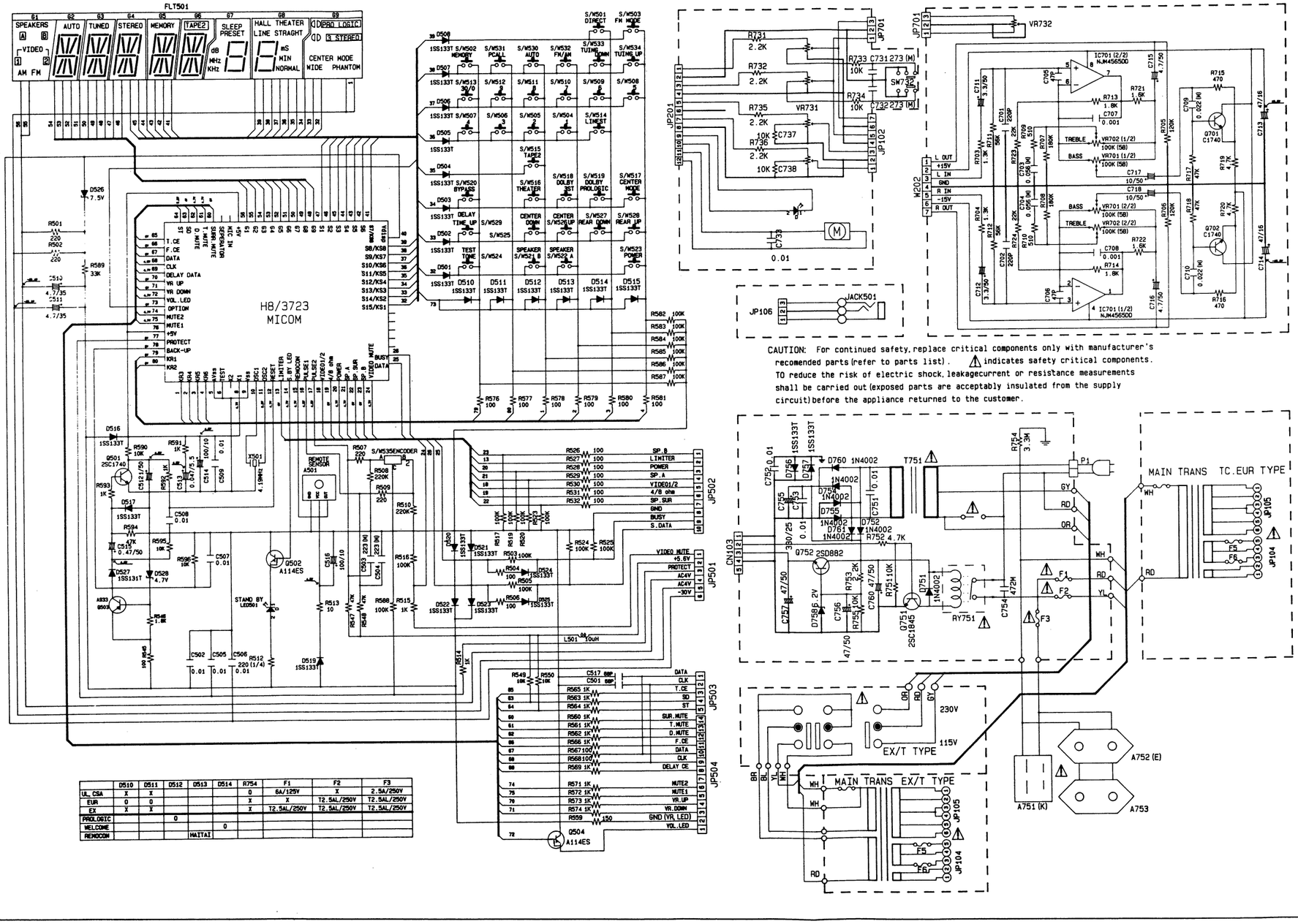
CABINET EXPLODED VIEW





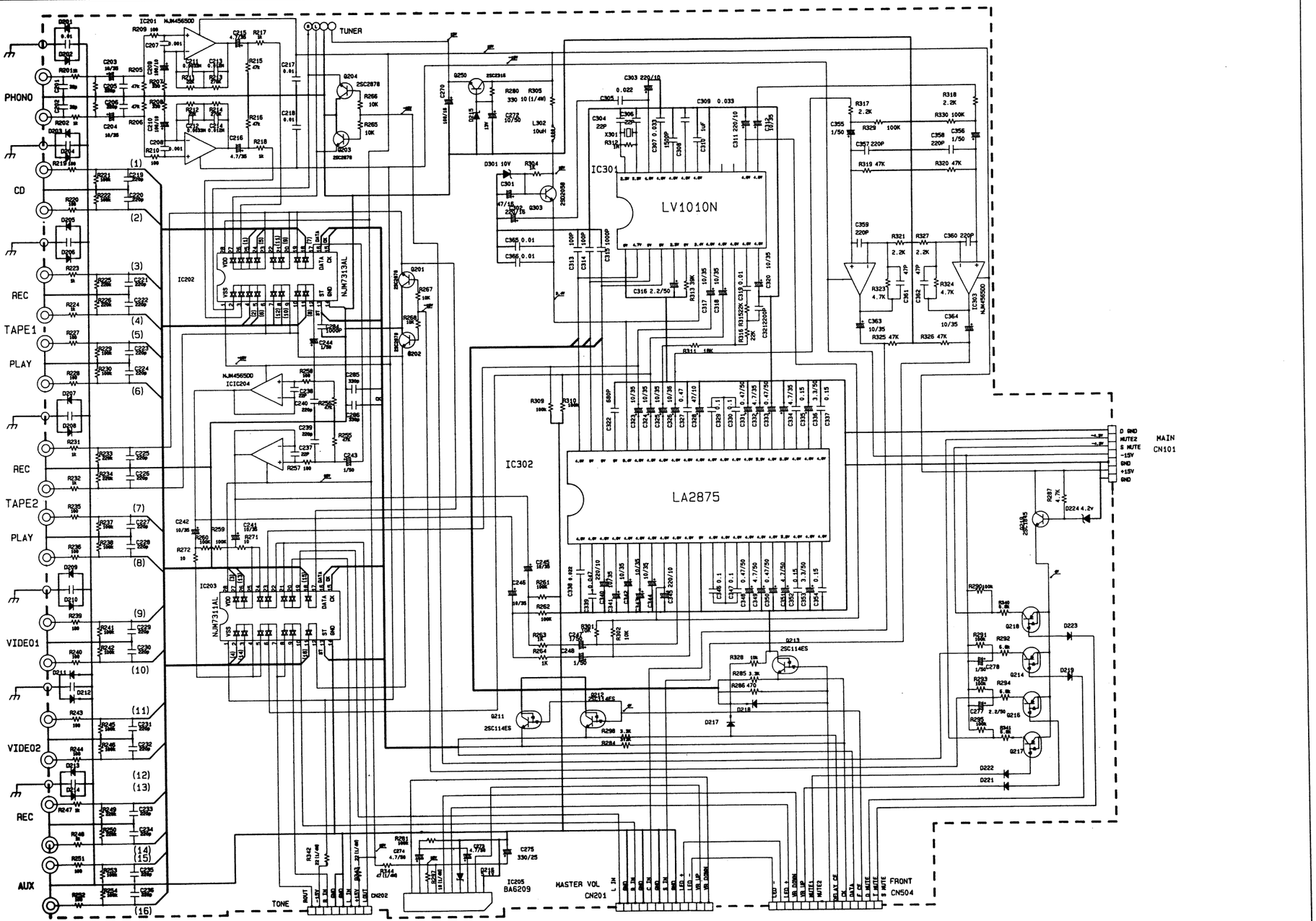
NO	PART NAME	Q'TY
1	PANEL FRONT	1
2	KNOB VOLUME	2
3	WINDOW KNOB/VOLUME	2
4	WINDOW DISPLAY	1
5	KNOB CONTROL	3
6	BUTTON CENTER	1
7	KNOB LOUD	1
8	PCB TONE CONTROL ASSY	1
9	BUTTON S.P.K.	1
10	BUTTON POWER	1
11	BUTTON MEMORY	2
12	BUTTON FUNCTION	1
13	BUTTON PRESET	1
14	PCB FRONT ASSY	1
15	CHASSIS FRONT	1
16	PCB HEAD PHONE ASSY	1
17	SPRING KNOB	1
18	FOOT	2
19	CUSHION FOOT	2
20	FOOT KIFCO	2
21	CHASSIS MAIN	1
22	BRACKET HEATSINK "B"	1
23	HEAT SINK MAIN	1
24	BRACKET MIDDLE	1
25	BRACKET HEATSINK "A"	1
26	CHASSIS BACK	1
27	CORD AC	1
28	STOPPER CORD AC	1
29	SW,SLIDE	0
30	PCB MAIN ASSY	1
31	HEAT SINK SUB	1
32	PCB TUNER ASSY	1
33	BRACKET PCB	1
34	PCB POWER ASSY	1
35	POWER TRANS	1
36	REMOCON	1
37	ANTENNA,FM T	1
38	ANTENNA,LOOP	1
39	BATTERY,DRY	1
40	ANTENNA,MODULE	0
41	CABINET TOP	1
42	SCREW +2S 3x14 YL W/S.P WASHER	12
43	SCREW,TAPPING +3S 3x8 CR/BH	1
44	SCREW,SPECIAL +2S 3x8 B"TITE YL/BH	46
45	SCREW,SPECIAL +3S 4x8 B"TITE YL/BH	4
46	SCREW,SPECIAL +2S 3x8 B"TITE BK/BH	39
47	SCREW MACHINE +3t 3x6/BH	1

SCHEMATIC DIAGRAM FRONT UNIT

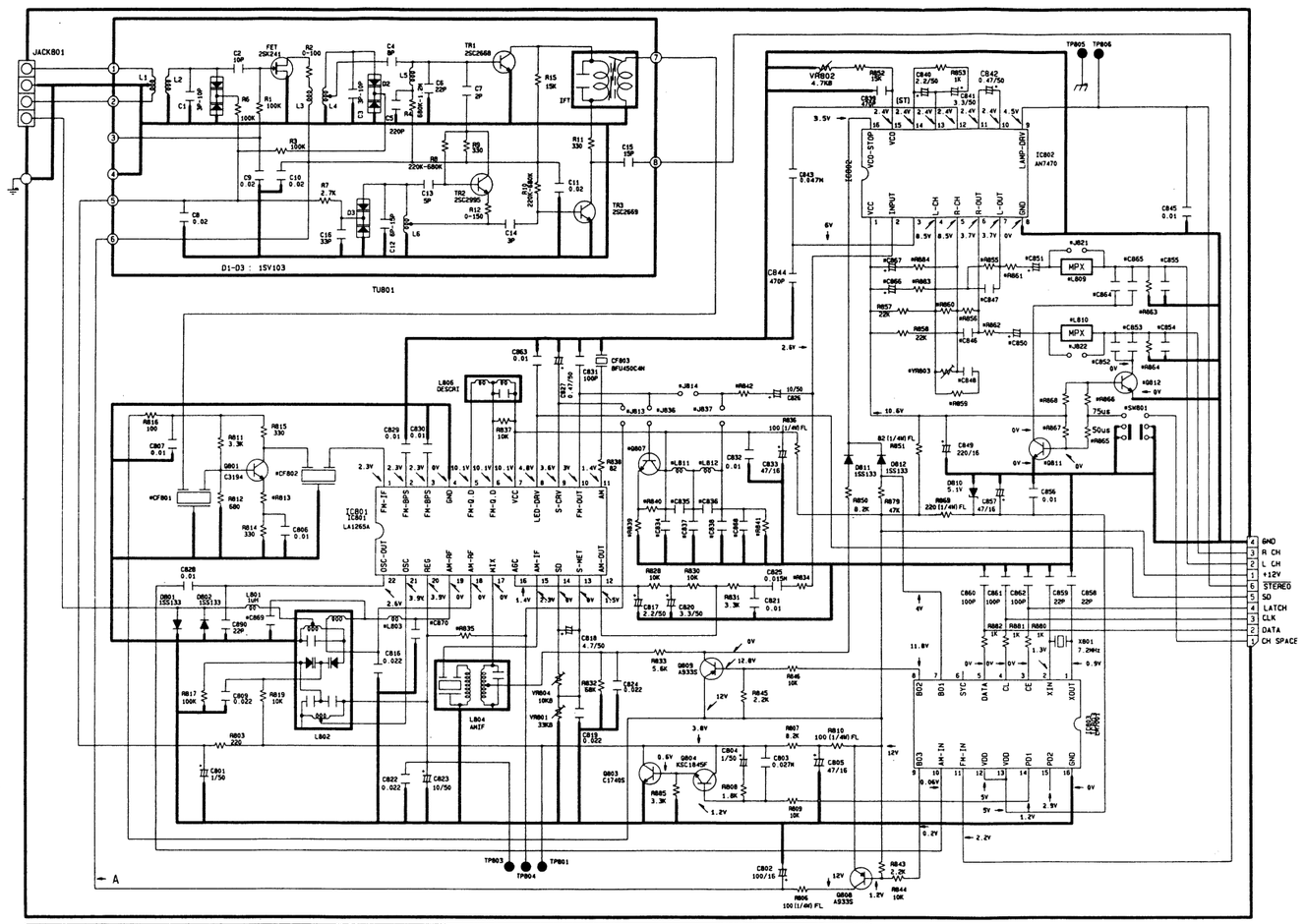


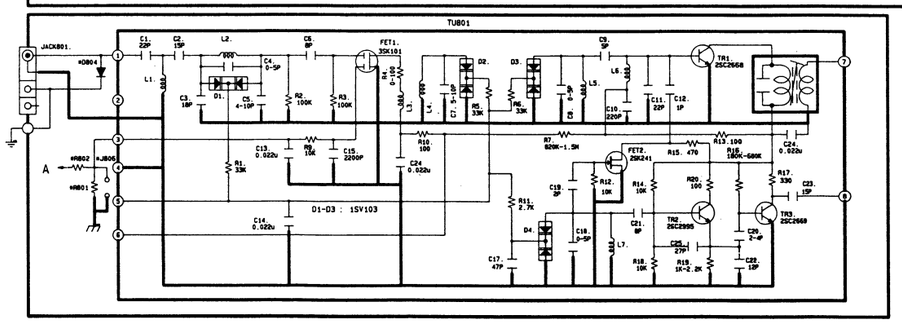
	D510	D511	D512	D513	D514	R754	F1	F2	F3
UL, CSA	X	X				0	6A/125V	X	2.5A/250V
EUR	0	0				X	X	T2.5AL/250V	T2.5AL/250V
EX	X	X				X	T2.5AL/250V	T2.5AL/250V	T2.5AL/250V
PROLOGIC			0						
WELCOME					0				
REMOCON				HAITAI					

SCHEMATIC DIAGRAM PRO-LOGIC UNIT



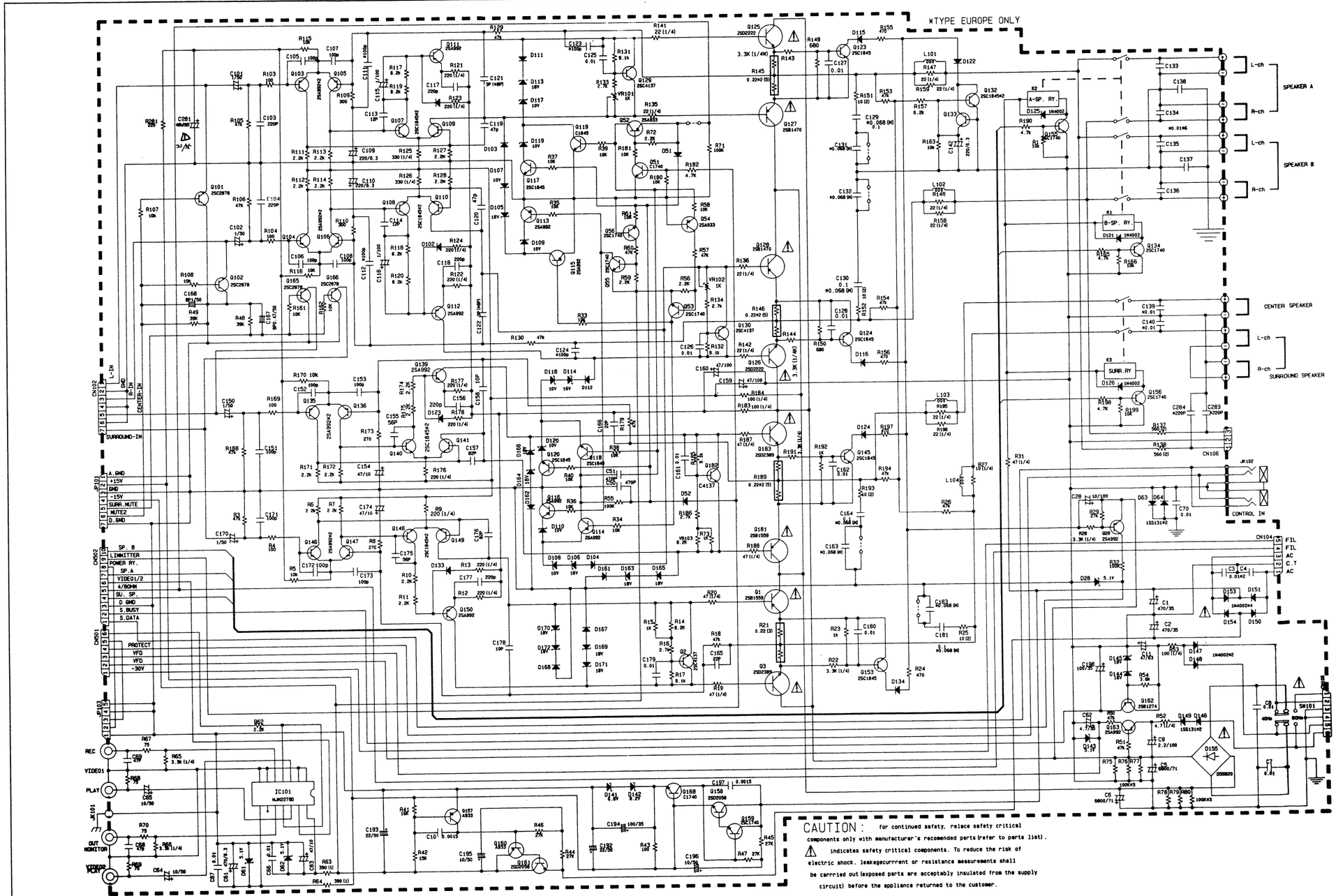
SCHEMATIC DIAGRAM TUNER UNIT



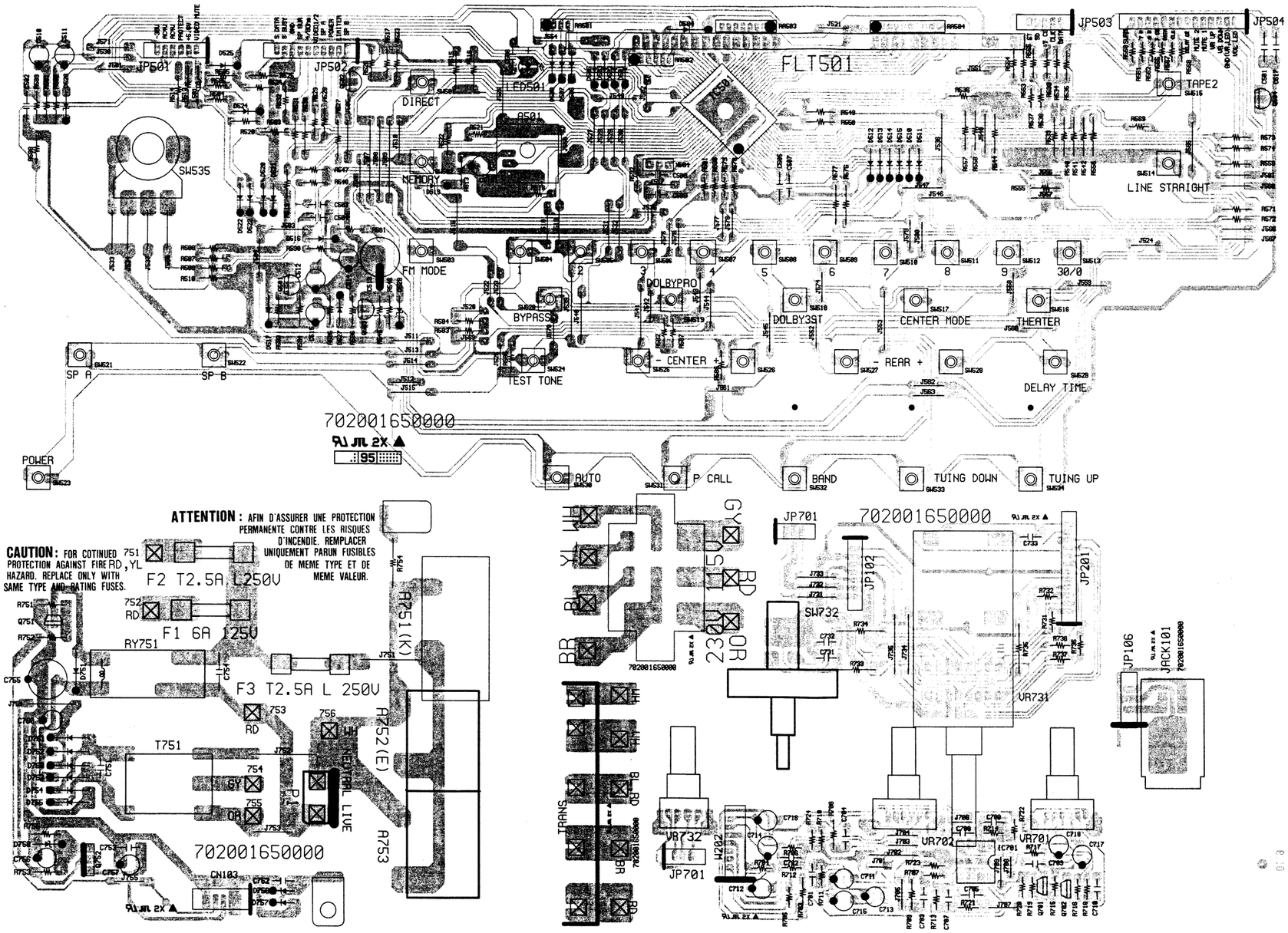


	USA	AUS(※)	EUR
QB07	×	×	C1740S
QB11	×	×	×
QB12	×	×	×
RB01	×	×	4.7K
RB02	×	×	10K
RB13	56	56	22
RB34	36K	36K	47K
RB35	15K	39K	39K
RB39	×	×	3.3K
RB40	×	×	2.2K
RB41	×	×	47K
RB42	39K	39K	47K
RB55	51K	51K	47K
RB56	51K	51K	47K
RB59	×	×	470
RB60	330K	330K	×
RB61	3.6K	3.6K	3.3K
RB62	3.6K	3.6K	3.3K
RB63	39K	39K	3.3K
RB64	39K	39K	3.3K
RB65	×	×	×
RB66	×	×	×
RB67	×	×	×
RB68	×	×	×
RB83	×	×	12K
RB84	×	×	12K
CB34	×	×	470P
CB35	×	×	120P
CB36	×	×	270P
CB37	×	×	1500P
CB38	×	×	1200P
CB46	150P	150P	1000P
CB47	150P	150P	1000P
CB48	×	×	220P
CB50	1/50	1/50	2.2/50
CB51	1/50	1/50	2.2/50
CB52	×	×	×
CB53	×	×	×
CB54	0.022uF	0.015uF	0.0047uF
CB55	0.022uF	0.015uF	0.0047uF
CB64	×	×	×
CB65	×	×	×
CB66	×	×	22/16
CB67	×	×	22/16
CB68	×	×	100P
CB69	×	×	6P
CB70	×	×	22P
DB04	×	×	1SS133T
LB02	×	×	10uH
LB09	×	×	MPX
LB10	×	×	MPX
LB11	×	×	5.6mH
LB12	×	×	6.8mH
JB06	O	O	×
JB14	O	O	×
JB21	O	O	×
JB22	O	O	×
JB35	×	×	O
JB36	×	×	O
JB37	×	×	O
VRB03	×	×	220KB
SWB01	×	×	×
CFB01, B02	SEF10.7MA5	SEF10.7MA5	SEF10.7ME3

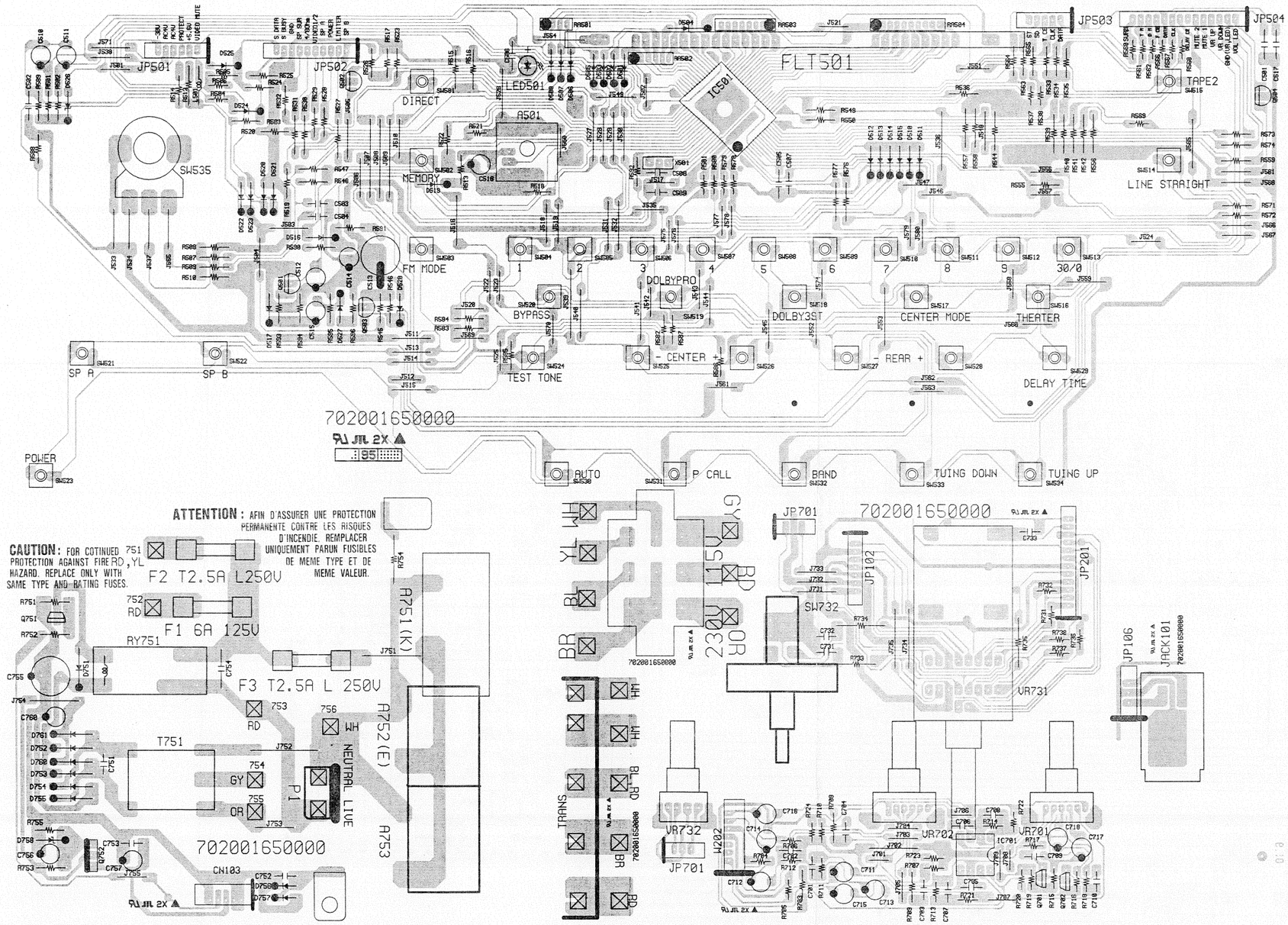
SCHEMATIC DIAGRAM MAIN UNIT


*TYPE EUROPE ONLY
SPEAKER A
SPEAKER B
CENTER SPEAKER
SURROUND SPEAKER
L-ch
R-ch
CONTROL IN
CAUTION : for continued safety, relace safety critical components only with manufacturer's recomended parts(refer to parts list).
indicates safety critical components. To reduce the risk of electric shock, leakagecurrrent or resistance measurements shall be carrried out(exposed parts are acceptably insulated from the supply circuit) before the appliance returned to the customer.

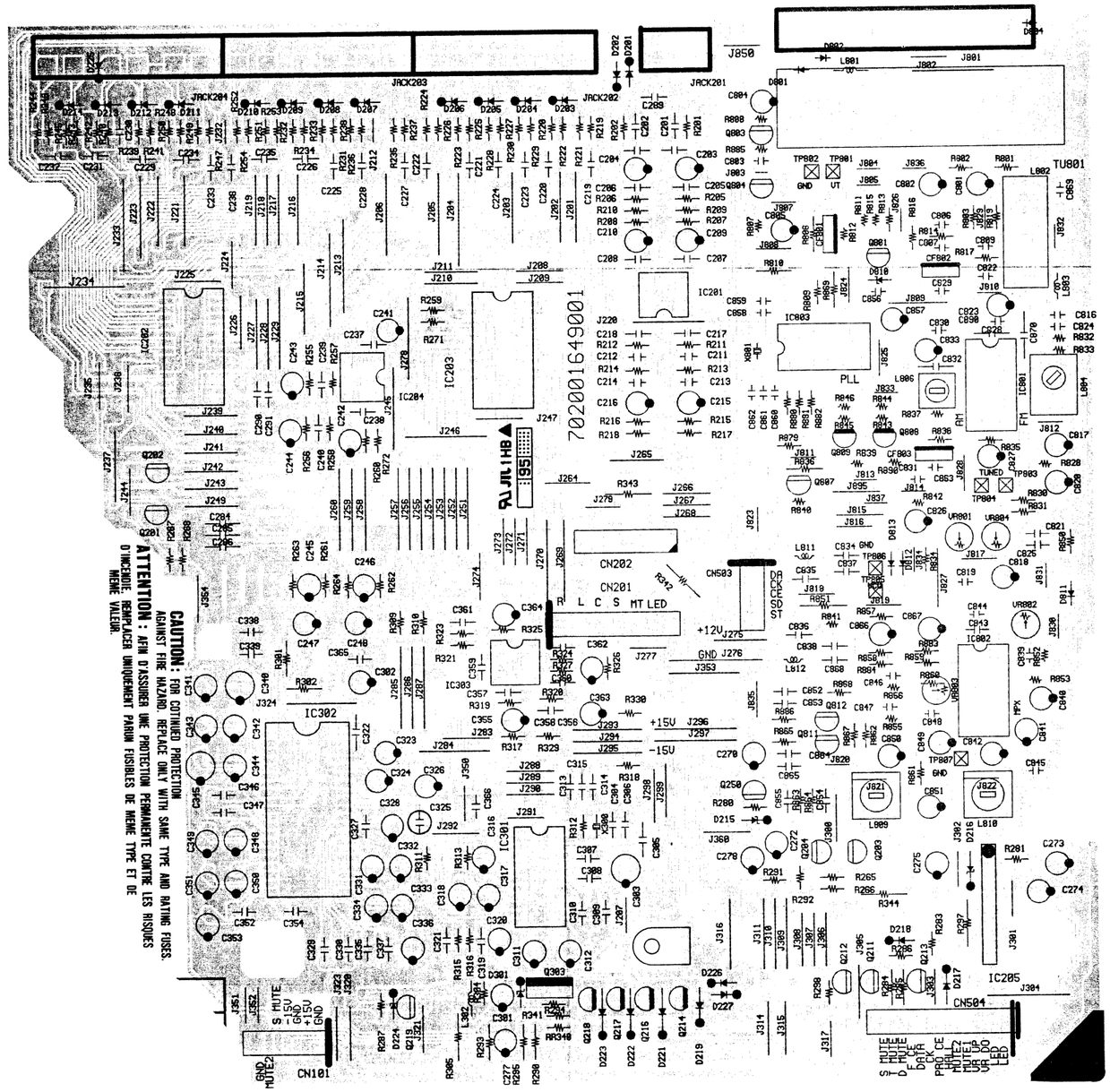
PC BOARD (COMPONENT SIDE VIEW) FRONT UNIT



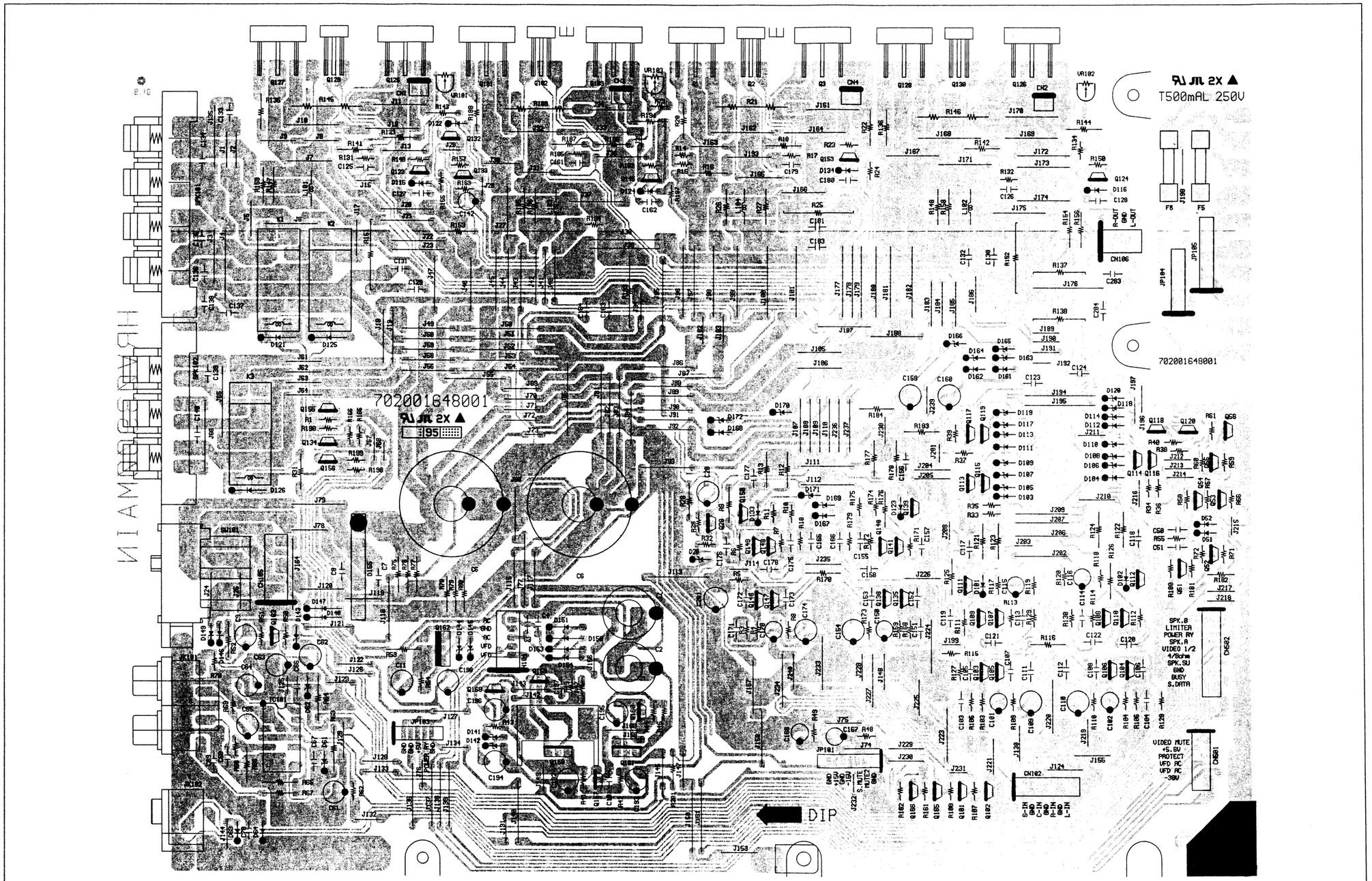
PC BOARD (COMPONENT SIDE VIEW) FRONT UNIT



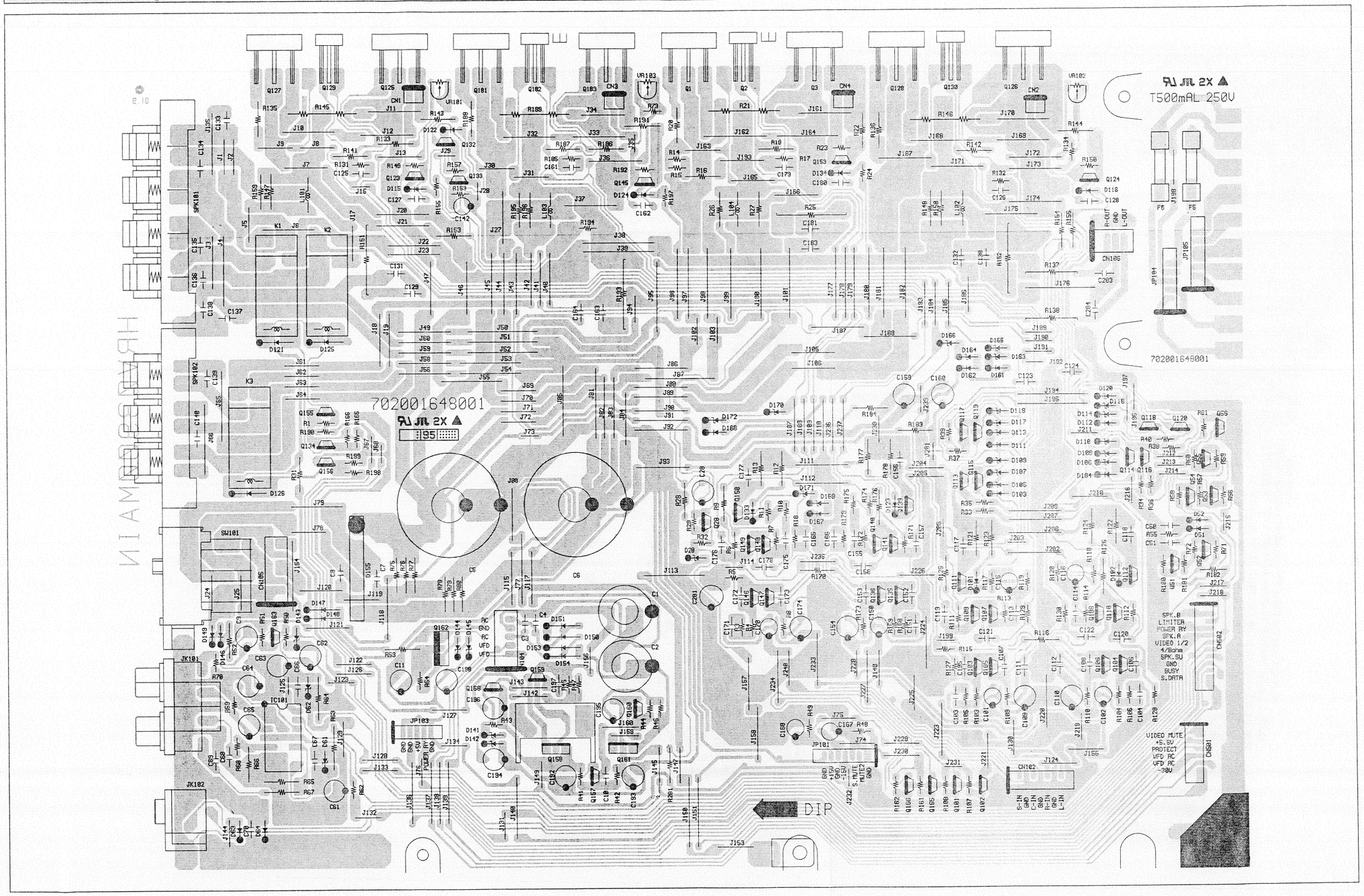
PCB BOARD (COMPONENT SIDE VIEW) TUNER UNIT



P.C. BOARD (COMPONENT SIDE VIEW) MAIN UNIT



P.C. BOARD (COMPONENT SIDE VIEW) MAIN UNIT



ELECTRICAL PARTS LIST

REF NO	DESCRIPTION	Q'TY	LC/DO
			,858,890,870
D001-39006-726	SL39PF-J	2	C201,202
D001-47006-726	SL47PF-J	2	C361,362
D005-10127-726	B100PF-K	9	C315,314,861,862,863,831 ,860,868,285,286
D005-10227-726	B0.001UF-K	6	C207,208,284,313,846,847
D005-12127-726	B120PF-K	1	C835
D005-22127-726	B220PF-K	27	C205,206,233,234,239,240 ,357,358,848,230,232,231, 229,236,235,226,225,228, 227,222,221,224,223,220, 219,204,203
D005-22359-426	F0.022UF-Z	6	C305,809,816,819,822,824
D005-27127-726	B270PF-K	1	C836
D005-47127-726	B470PF-K	2	C844,834
D005-68127-726	B680PF-K	1	C322
D006-10459-705	F0.1UF-Z	2	C365,366
D007-10388-326	Y0.01UF-M	17	C217,218,319,863,828,806 ,807,290,291,289,863 C829,856,830,845,821,832
D007-12278-326	X0.0012UF-M	1	C838
D007-15278-326	X0.0015UF-M	1	C837
D007-22278-326	X0.0022UF-M	1	C321
D020-12316-705	MI-0.012UF-J	2	C214,213
D020-15216-705	MI-0.0015UF-J	1	C308
D020-15306-C05	ST-0.015UF-J	1	C825
D020-22316-705	MI-0.022UF-J	1	C338
D020-33216-705	MI-0.0033UF-J	2	C211,212
D020-33316-705	MI-0.033UF-J	2	C307,309
D020-47216-705	MI-0.0047UF-J	2	C854,855
D020-47316-705	MI-0.047UF-J	2	C339,843
D023-10406-700	EB-0.1UF-J	4	C329,330,346,347
D023-10506-700	EB-1UF-J	1	C310
D023-15406-700	EB-0.15UF-J	4	C335,337,352,354
D023-47406-700	EB-0.47UF-J	1	C327
D040-R4708-705	0.47UF-M	6	C331,334,348,350,827,842
D040-01008-705	1UF-M	9	C243,244,247,248,278,355 ,356,801 C804
D040-10008-705	10UF-M	22	C203,204,241,242,245,246 ,312,317,318,320,323,324, 326,341,823,826,342,343, 344,363,364,272
D040-10108-305	100UF-M	4	C209,210,270,802
D040-2R208-705	2.2UF-M	6	C316,277,840,817,850,851
D040-22008-305	22UF-M	2	C866,867
D040-22108-205	220UF-M	5	C302,303,311,340,345
D040-22108-305	220UF-M	1	C849
D040-3R308-705	3.3UF-M	4	C336,353,820,841
D040-33108-405	330UF-M	1	C275
D040-4R708-705	4.7UF-M	9	C215,216,273,274,332,333 ,349,351,818
D040-47008-305	47UF-M	5	C301,328,805,833,857
D042-01008-705	1UF-M	1	C325

REF NO	DESCRIPTION	Q'TY	LC/DO
D330-1R070-000	1UF-Q40	1	L801
D330-10070-020	10UH-Q40	1	L302
J500-0933S-005	2SA933S, 0.3W	2	Q808,809
J502-1740S-001	2SC1740SR, 0.3W	2	Q803,807
J502-1845F-000	KSC1845F, 0.5W	2	Q219,804
J502-2316Y-002	KSC2316Y, 0.9W	1	Q250
J502-31940-000	KTC31940, 0.6W	1	Q801
J503-13030-001	2SC2878, 0.4W	4	Q201,202,203,204
J600-0114E-001	DTA114ES, 0.3W	4	Q214,216,217,218
J602-0114E-001	DTC114ES, 0.3W	3	Q211,212,213
K000-01330-026	1SS133T-77-26MM	29	D201,202,203,204,205,206 ,207,208,209,210,211,212, 213,214,217,218,219,221, 222,223,801,802,811,812, 813,804,225,226,227
K060-04R71-426	MTZ4.7B-0.5W	1	D224
K060-05R11-426	MTZ5.1B-0.5W	2	D216,810
K060-10R01-426	MTZ10B-0.5W	1	D301
K060-13R01-426	MTZ13B-0.5W	1	D215

P.C.B MANU INS ASSY(POWER)

D004-10359-D00	F0.01UF-Z	1	C751
D008-47208-900	FZ0.0047UF-M	1	C754
G435-00014-000	YKE31-0090	2	A752,753
G680-00021-000	HR-CR7-DC12V	1	RY751
J503-0882Y-012	KSD882Y, 1W	1	Q752
C000-01036-226	10K-J, 1	2	R751,755
C000-02226-226	2.2K-J, 1	1	R753
C000-04726-226	4.7K-J, 1	1	R752
D007-10388-326	Y0.01UF-M	2	C752,753
D040-10108-206	100UF-M	1	C757
D040-33108-405	330UF-M	1	C755
D040-47008-705	470F-M	2	C756,760
G645-00005-001	PI5.2-REEL	4	F2,3
J502-1845F-000	KSC1845F, 0.5W	1	Q751
K000-01330-026	1SS133T-77-26MM	2	D756,757
K040-40020-026	1N4002A-26MM	7	D751,752,753,754,755,761,760
K060-06R21-426	MTZ6.2B-0.5W	1	D758

P.C.B MANU INS ASSY(TONE CONTROL)

C452-11240-030	RK11K1160107 200KW 22.5	1	VR732
C454-12140-050	RK14K1260107-100KB*2-22.5	2	VR701,702
C495-12140-070	EUZ-MM8F25B15	1	VR731
G000-11200-001	SPUL 12*2T W	1	SW732
J121-45650-001	NJM4565DD-DIP8P	1	IC701
C000-01036-226	10K-J, 1	4	R733,734,737,738
C000-01246-226	120K-J, 1	2	R705,706
C000-01326-226	1.3K-J, 1	2	R703,704
C000-01626-226	1.6K-J, 1	2	R721,722
C000-01826-226	1.8K-J, 1	2	R721,722
C000-01846-226	180K-J, 1	2	713,714
C000-02226-226	2.2K-J, 1	4	R707,708
C000-02236-226	22K-J, 1	2	R731,732,735,736

ELECTRICAL PARTS LIST

REF NO	DESCRIPTION	QTY	LC/DO
J500-0992F-005	KSA992F, 0.5W	15	Q103,104,105,106,111, 112,113,116,135 Q136,139,150,028,146,147
J502-1740S-001	2SC1740SR, 0.3W	6	Q55,134,155,156,159,168
J502-1845F-000	KSC1845F, 0.5W	16	Q107,108,109,110,117, 120,123,124,132 Q133,140,141,145,148, 153,149
J503-13030-001	2SC2878, 0.4W	4	Q101,102,165,166
K000-01310-026	1SS131T-77-26MM	20	D052,101,102,103,104, 111,112,115,116,063,064 D122,123,124,133,134, 161,162,167,168
K040-40020-026	1N4002A-26MM	9	D121,125,126,147,148, 150,151,153,154
K060-05R11-426	MTZ5.1B-0.5W	3	D028,061,062
K060-06R84-426	MTZJ6.8B-0.5W	1	D141
K060-08R24-426	MTZJ8.2B-0.5W	1	D142
K060-10R05-426	MTZJ10C-0.5W	8	D107,108,109,110,117, 118,119,120
K060-16R05-426	MTZJ16C-0.5W	5	D105,106,113,114,144
K060-18R05-426	MTZJ18C-0.5W	9	D145,165,166,169,170, 163,164,171,172

P.C.B MANU INS ASSY(TUNER)

C001-01006-310	10-J, 1	2	R305,297
C001-01016-310	100-J, 1	3	R806,810,836
C001-02206-310	22-J, 1	2	R342,343
C001-02216-310	220-J, 1	1	R869
C001-04706-310	47-J, 1	1	R344
C001-08206-310	82-J, 1	1	R851
C544-10300-210	10KB-6H3P, 0.05W-100V	2	VR804,801
C544-22400-210	220KB-6H3P, 0.05W-100V	1	VR803
C544-47200-210	4.7KB-6H3P, 0.05W-100V	1	VR802
D000-06011-700	CH6PF-D	1	C869
D020-27306-C00	ST-0.027UF-J	1	C803
D022-47106-701	ST-470PF-J	1	C839
D300-5R600-000	5.6MH	1	L811
D300-6R800-000	6.8MH	1	L812
D330-10070-010	10UH-Q50	1	L803
D940-00400-000	RBW-07V-0040	1	L802
D950-00090-000	BCFAZ-009	1	L804
D951-50440-000	292MEAS-5044DLE	1	L806
E401-50310-000	253BGGS-K5031	2	L809,810
E430-10R70-051	SFE10.7MS3GK-A	2	CF801,802
E431-04500-000	BFU450C4N	1	CF803
E800-7R200-003	7.2MHZ, 20PPM-CL;13.7PF	1	X801
E800-8R000-001	8.00MHZ, HC49U-CL;22PF	1	X300
E900-00011-000	FE415-G11	1	TU801
G040-10580-000	AK1	1	JACK801
G601-02004-400	DAERYUNG	1	JACK201
G603-06004-602	DAERYUNG	3	JACK202,203,204
J040-73110-001	NJU7311AL-SDIP28P	1	IC203

REF NO	DESCRIPTION	QTY	LC/DO
J040-73130-001	NJU7313AL-SDIP28P	1	IC202
J081-10100-001	LV1010N, LV1011-SUR	1	IC301
J081-27850-001	LA2785(PRO-LOGIC) SURROUND	1	IC302
J120-70010-001	LM7001-PLL	1	IC803
J121-45650-001	NJM4565DD-DIP8P	3	IC201,204,303
J124-12650-001	LA1265	1	IC801
J124-74700-001	AN7470	1	IC802
J127-62090-001	BA6209N	1	IC205
J503-2058Y-014	KTD2058Y, 2W	1	Q303
C000-01006-226	10-J, 1	2	R271,272
C000-01016-226	100-J, 1	17	R209,210,219,220,227, 228,235,236,243,244,251, 252,248,247,255,256,816
C000-01026-226	1.0K-J, 1	18	R853,880,881,882,201,202 ,217,218,223,224,231,232, 264,304,239,240,261,890
C000-01036-226	10K-J, 1	15	R809,819,828,830,837,844 ,846,266,267,265,268,301, 302,283,802
C000-01046-226	100K-J, 1	14	R817,262,281,293,295,329 ,330,263,291,290,309 R310,259,260
C000-01056-226	1.0M-J, 1	1	R312
C000-01236-226	12K-J, 1	2	R883,884
C000-01536-226	15K-J, 1	1	R852
C000-01826-226	1.8K-J, 1	1	R808
C000-01836-226	18K-J, 1	1	R311
C000-02206-226	22-J, 1	1	R813
C000-02216-226	220-J, 1	1	R803
C000-02226-226	2.2K-J, 1	7	R843,845,317,318,323, 327,840
C000-02236-226	22K-J, 1	6	R857,858,315,316,211,212
C000-02246-226	220K-J, 1	18	R221,222,225,226,229,230 ,233,234,237,238,241,242, 245,246,249,250,253,254
C000-02746-226	270K-J, 1	2	R213,214
C000-03316-226	330-J, 1	5	R814,815,207,208,280
C000-03326-226	3.3K-J, 1	11	R811,831,885,284,285,298 ,839,861,862,863,864
C000-03936-226	39K-J, 1	2	R313,835
C000-04716-226	470-J, 1	2	R286,859
C000-04726-226	4.7K-J, 1	4	R287,321,324,801
C000-04736-226	47K-J, 1	16	R879,205,206,215,216,257 ,258,319,320,325,326,834, 841,842,855,856
C000-05626-226	5.6K-J, 1	1	R833
C000-06816-226	680-J, 1	1	R812
C000-06826-226	6.8K-J, 1	4	R292,294,340,341
C000-06836-226	68K-J, 1	1	R832
C000-08206-226	82-J, 1	1	R838
C000-08226-226	8.2K-J, 1	2	R807,850
D001-22006-706	SL22PF-J	10	C237,238,304,306,359,360

ELECTRICAL PARTS LIST

REF NO	DESCRIPTION	Q'TY	LC/DO
C000-04716-226	470-J, 1	2	R723,724
C000-04726-226	4.7K-J, 1	2	R715,716
C000-04736-226	47K-J, 1	2	R719,720
C000-05116-226	510-J, 1	2	R717,718
C000-05636-226	56K-J, 1	2	R709,710
D001-47006-726	SL47PF-J	2	R711,712
D005-22127-726	B220PF-K	2	C705,706
D007-10388-326	Y0.01UF-M	1	C701,702
D020-10216-705	MI-0.001UF-J	2	C733
D020-22316-705	MI-0.022UF-J	2	C707,708
D020-27316-705	MI-0.027UF-J	2	C709,710
D020-56316-705	IM-0.056UF-J	2	C731,732
D040-10008-705	10UF0M	2	C703,704
D040-3R308-705	3.3UF-M	2	C717,718
D040-4R708-705	4.7UF-M	2	C711,712
D040-47008-305	47UF-M	2	C715,716
J502-1740S-001	2SC1740SR, 0.3W	2	C713,714 Q701,702

P.C.B MANU INS ASSY(HEAD PHONE)

G402-06410-000	HTJ-06410D	1	JACK101

P.C.B MANU INS ASSY(FRONT)

C000-01056-226	1.0M-J, 1	1	R600
D090-47390-400	H0.047F-70UA	1	C513
E830-4R100-000	CST4.19MGW-3PIN	1	X501
E940-00005-000	MM-001E	1	A501
G120-52024-000	EVQ WQ5 F20 24B	1	SW535
J020-64337-233	HD6433723D33F-QFP80P	1	IC501
K500-05200-501	PI5-RD	1	LED501
K530-00025-000	SVA-9MS PI1	1	FLT501
C000-01006-226	10-J, 1	1	R513
C000-01016-226	100-J, 1	18	R504,506,526,527,528, 529,530,531,532,545 R576,577,578,579,580, 581,567,568
C000-01026-226	1.0K-J, 1	17	R514,560,561,562,563, 564,565,566,515,569 R571,572,573,574,591, 592,593
C000-01036-226	10K-J, 1	5	R590,549,550,595,596
C000-01046-226	100K-J,1	17	R505,517,518,519,520, 523,524,525,582,583,584 R585,586,587,503,588,516
C000-01516-226	150-J, 1	1	R559
C000-01826-226	1.8K-K, 1	1	R546
C000-02216-226	220-J, 1	4	R501,502,507,509
C000-02216-326	220K-J, 1	1	R512
C000-02246-226	220K-J, 1	2	R508,510
C000-03336-226	33K-J, 1	1	R589
C000-04736-226	47K-J, 1	3	R547,548,594
D001-68006-726	SL68PF-J	2	C501,517
D007-10388-326	Y0.01UF-M		

REF NO	DESCRIPTION	Q'TY	LC/DO
D040-R4708-705	0.47UF-M	7	C502,505,506,507,508,509
D040-01008-705	1UF-M	1	C515
D040-10108-206	100UF-M	1	C512
D040-4R708-705	4.7UF-M	2	C514,516
D330-10070-020	10UH-Q40	2	C510,511
G180-00027-001	SKHV10920A, 5MM	1	L501
J500-0933S-005	2SA9333S, 0.3W	34	SW501-534
J502-1740S-001	2SC1740SR, 0.3W	1	Q503
J600-0114E-001	DTA114ES, 0.3W	1	Q501
K000-01330-026	1SS133T-77-26MM	2	Q502,504
		23	D501,502,503,504,505, 506,507,508,516,517 D519,520,521,522,523, 524,525,527,512,513
K060-04R71-426	MTZ4.7B-0.5W		D514,510,511
K060-07R51-426	MTZ7.5B-0.5W	1	D528
		1	D526

ELECTRICAL PARTS LIST

HEAT SINK ASSY

REF NO	DESCRIPTION	QTY	LC/DO
J501-1559Y-117	2SB1599Y	2	Q1, 181
J502-4137V-013	2SC4137V	4	Q2,129, 130, 182
J503-2389Y-117	2SD2389Y	2	Q3, 183
J581-1470Q-016	2SB1470Q	2	Q127, 128
J583-2222Q-016	2SD2222Q	2	Q125, 126

P.C.B MANU INS ASSY(MAIN)

C001-01016-310	100-J, 1	3	R53,183,184
C001-02206-310	22-J, 1	4	R135,136,141,142
C001-02216-310	220-J, 1	11	R009,012,013,121,122, 123,124,176,177,178, 281
C001-03316-310	330-J, 1	2	R125,126
C001-03326-310	3.3K-J, 1	5	R022,028,143,144,191
C001-04706-310	47-J, 1	5	R019,020,031,187,188
C041-01006-620	10-J, 2W	4	R025,151,152,193
C041-03916-515	390-J, 1W-F15	2	R063,064
C041-05616-515	560-J, 1W-F15	2	R137,138
C144-R2207-710	0.22•2-K	1	R021
C144-R2207-910	0.22•2-K	3	R145,146,189
C544-10201-511	1KB-6.4H3P, 0.1W-50V	2	VR101,102
D004-10359-D00	F0.01UF-Z	4	C3,4,7,8
D040-47008-C00	47UF-M	2	C159,160
D040-47108-502	470UF-M	2	
D040-68208-900	6800UF-M	2	C5,6
D330-R5000-000	0.5UH-BULK	4	L101,102,103,104
G040-40620-701	P40620701P 6P	1	SPK102
G040-40820-260	P40820260P	1	SPK101
G401-49600-000	EMUDEN	1	JK102
G602-04004-503	DAERYUNG	1	JK101
G650-50125-104	250V-T0.5A-SEMKO	2	F005,006
G680-00022-000	JW2AHN-DC24V	3	K1,2,3
J040-22790-000	NJM2279D-S	1	IC101
J501-1274R-015	2SB1274R, 20W	1	Q162
J503-2058Y-014	KTD2058Y, 2W	2	Q158,161
K047-40030-001	D5SB20-4003	1	D155
C000-01006-326	10-J, 1	1	R027
C000-01016-226	100-J, 1	5	R103,104,043,004,169
C000-01026-226	1.0K-J, 1	4	R023,192,015,073
C000-01036-226	10K-J, 1	17	R001,005,035,036,037,040 ,061,107,108,170 R115,116,161,162,163,166 ,199
C000-01046-226	100K-J, 1	2	R032,055
C000-01046-326	100K-J, 1	6	R075,076,077,078,079,080
C000-01536-226	15K-J, 1	1	R042
C000-01636-226	16K-J, 1	1	R041
C000-02206-326	22-J, 1	6	R147,148,158,159,195,196
C000-02226-226	2.2K-J, 1	14	R006,007,059,062,111,112 ,113,114 R171,172,174,175,010,011
C000-02256-226	2.2M-J, 1	2	R127,128
C000-02716-226	270-J, 1	2	R173,008

REF NO	DESCRIPTION	QTY	LC/DO
C000-02726-226	2.7K-J, 1	4	R133,134,016,186
C000-02736-226	27K-J, 1	5	R029,044,045,046,047
C000-03016-226	300-J, 1	2	R110,109
C000-03326-326	3.3K-J, 1	2	R065,066
C000-03626-226	3.6K-J, 1	1	R054
C000-03936-226	39K-J, 1	2	R048,049
C000-04716-226	470-J, 1	4	R155,156,197,024
C000-04726-226	4.7K-J, 1	3	R165,190,198
C000-04736-226	47K-J, 1	13	R003,018,026,060,105, 106,129,130,153,154 R168,179,194
C000-06226-226	6.2K-J, 1	1	R157
C000-06816-226	680-J, 1	2	R149,150
C000-07506-226	75-J, 1	4	R067,068,069,070
C000-08226-226	8.2K-J, 1	6	R117,118,119,120,014,VR103
C000-19126-226	9.1K-J, 1	4	R131,132,185,017
D000-08011-705	CH8PF-D	2	C121,122
D000-10001-705	SL10PF-D	2	C158,178
D000-12006-705	SL12PF-J	2	C113,114
D000-22006-705	SL22PF-J	2	C165,166
D000-47006-D05	SL47PF-J	2	C119,120
D000-56006-705	SL56PF-J	2	C155,175
D000-82006-D05	SL82PF-J	2	C157,176
D001-47006-726	SL47PF-J	2	C068,069
D004-10327-705	B0.01UF-K	9	C125,126,127,128,161, 162,179,180 C070
D004-15259-705	F0.0015UF-Z	1	C010
D004-22127-705	B220PF-K	4	C117,118,156.177
D005-10127-726	B100PF-K	12	C105,106,107,108,152, 153,172,173,111,112 C123,124
D005-22127-726	B220PF-K	4	C151,171,103,104
D005-47127-726	B470PF-K	1	C50
D007-10388-326	Y0.01UF-M	2	C066,067
D007-15278-326	X0.0015UF-M	1	C197
D020-10316-705	MI-0.01UF-J	8	C133,134,135,136,137, 138,139,140
D020-68316-705	MI-0.068UF-J	8	C129,130,131,132,163, 164,181,183
D040-01008-605	1UF-M	2	C115,116
D040-01008-705	1UF-M	4	C101,102,150,170
D040-10008-C05	10UF-M	1	C28
D040-10008-705	10UF-M	4	C195,196.064,065
D040-10108-505	100UF-M	2	C194,198
D040-22008-705	22UF-M	3	C192,193,281
D040-22108-205	220UF-M	3	C109,110,142
D040-47008-305	47UF-M	3	C063,154,174
D040-47008-805	47UF-M	1	C011
D040-47108-105	470UF-M	1	C61
D042-R4708-705	0.47UF-M	1	C167
D042-01008-705	1UF-M	1	C168
G645-00005-001	PI5.2-REEL	4	F5,6
J500-0933S-005	2SA933S, 0.3W	3	Q157,160,056

SPECIFICATIONS

Audio section (U.S.A)

Rated power output at the STEREO operation

100watts per channel minimum RMS, both channels driven at 8Ω, from 40Hz to 20,000Hz with no more than 0.08% totlal harmenic distortions (FTC)

Power output at the Surround operation
Front (1kHz, 0.9% T.H.D. at 8Ω) ..... 65W+65W
Center (1kHz, 0.9% T.H.D. at 8Ω) 65W
Rear (1kHz, 0.9% T.H.D. at 8Ω) ..... 18W+18W

Total harmonic distortion (1 kHz, 8 Ω) ..... 0.03 % at 50 W
Signal to noise ratio (IHF A)
PHONO (MM) ..... 74 dB
CD, TAPE, VIDEO ..... 100 dB
Input sensitivity / impedance
PHONO (MM) ..... 2.5mV/47k Ω
CD, TAPE, VIDEO ..... 200 mV/47k Ω
Tone controls
BASS ..... ± 10 dB (at 100 Hz)
TREBLE ..... ± 10 dB (at 10KHz)
Loudness control at- 30 dB level ..... + 9 dB (100 Hz)

Video section

VIDEO inputs / outputs(Composite) ..... 1Vp-p / 75 Ω

FM Tuner section

Tuning frequency range ..... 87.5 MHz ~ 108 MHz
Usable sensitivity (IHF) ..... 13.2 dBf (1.2 μV at 75 Ω)
50 dB quieting sensitivity
STEREO ..... 41.2 dBF (32 μV at 75 Ω)
Total harmonic distortion at 1 kHz
MONO 0.6%
STEREO ..... 0.7 %
Signal to noise ratio at 65 dBf (IHF)
MONO ..... 75 dB
STEREO ..... 68 dB
Selectivity (IHF ± 400 kHz) ..... 50 dB
Stereo separation (IHF at 1kHz) ..... 40 dB

AM Tuner section

Tuning frequency range 520kHz-1,710kHz
Usable sensitivity ..... 12 μV / (500 μV /m)
Total harmonic distortion ..... 0.7 %
Signal to noise ratio ..... 48 dB
Selectivity 30dB

General

power consumption 3A
AC outlet
SWITCHED ..... 2: (total 100 W 1A max.)
Dimensions ..... W: 440 mm (17-5/16")
H: 140 mm (5-5/8")
D: 358 mm (14-1/10")
Weight (net) ..... 9.6 kg (21.164 lb)

Audio section (EUROPE)

Rated power output at the STEREO operation
2 x 100w (DIN) 0,7% THD

Power output at the Surround operation
Front 2 x 65W (IEC 8 ohm) 0,9% THD
Center 65W (IEC 8 ohm) 0,9% THD
Rear 18W + 18W (IEC 18 chm) 0,9% THD

Total harmonic distortion (1 kHz, 8 Ω) ..... 0.03 % at 50 W
Signal to noise ratio (IHF A)
PHONO (MM) ..... 74 dB
CD, TAPE, VIDEO ..... 100 dB
Input sensitivity / impedance
PHONO (MM) ..... 2.5mV/47k Ω
CD, TAPE, VIDEO ..... 200 mV/47k Ω
Tone controls
BASS ..... ± 10 dB (at 100 Hz)
TREBLE ..... ± 10 dB (at 10KHz)
Loudness control at- 30 dB level ..... + 9 dB (100 Hz)

Video section

VIDEO inputs / outputs(Composite) ..... 1Vp-p / 75 Ω

FM Tuner section

Tuning frequency range ..... 87.5 MHz ~ 108 MHz
Usable sensitivity (IHF) ..... dBf (1.2 μV at 75 Ω)
50 dB quieting sensitivity
STEREO ..... dBF (32 μV at 75 Ω)
Total harmonic distortion at 1 kHz
STEREO ..... 0.7 %
Signal to noise ratio at 65 dBf (IHF)
MONO ..... 0.6 %
STEREO ..... 0.7 %
Selectivity (IHF ± 400 kHz) ..... 50 dB
Stereo separation (IHF at 1kHz) ..... 40 dB

AM Tuner section

Tuning frequency range ..... 522 kHz ~ 1,602 kHz
Usable sensitivity ..... 12 μV / (500 μV /m)
Total harmonic distortion ..... 0.7 %
Signal to noise ratio ..... 48 dB
Selectivity 30dB

General

power consumption ..... 310 w
AC outlet
SWITCHED ..... 2: (total 100 W 1A max.)
Dimensions ..... W: 440 mm (17-5/16")
H: 140 mm (5-5/8")
D: 358 mm (14-1/10")
Weight (net) ..... 9.6 kg (21.164 lb)